Minutes of spin meeting 05/07/08

Mei presented the analysis of RHIC polarization measurements in run8. These data were extracted by a script (from Todd). She also plotted STAR local polarimeter measurements in comparison with the CNI polarimeter measurements. Todd suggested to plot the data in correlation plot, such as blue and yellow injection/store polarization as they should be the same. On average, blue polarization transmission efficiency is close to 1 but yellow is around 0.88. This ratio is under the assumption of the known A_N at this point, but it did show that yellow performance was worse. Polarization life time at store was presented by the average polarization vs. first store measurement. Yousef commented that the STAR polarimeter measurement was done more often and should also be plotted. In addition, the polarization life time should be plotted. The second part of the presentation is about the effect of the orbit angle between two snakes on spin tune. Since we only had BPM data for blue ring, she extracted the orbit angles near four strong resonances for all blue ramps. She then plotted the first store polarization as function of these orbit angles. To the first order, there is no correlation between the polarization and these angles, which probably should be true as blue behaved similarly (polarization transmission efficiency) as run6. Yousef suggested to normalize the polarization to injection for the data mining. To determine the sign of the orbit angle contribution to the spin tune, Mei will work with Alfredo on spin tracking. Thomas commented on the motivation behind the study. Since we didn't have BPM data for yellow in run8, we can't prove that this was the reason for low yellow polarization. However, if the analysis shows the consistent story after data mining with run6 data, we probably feel more confident to monitor this parameter in the future run. Maybe the BPMs down stream can be used to extrapolate the beam position at snakes. For the comparison of profile and fixed target polarization measurements, Woody pointed out that both horizontal and vertical targets were used for blue measurements. They should be treated separately. At the end, Mei laid out the plan to deal with the orbit angle next run and the data mining.

At the end of the meeting, Anatoli suggested to discuss the development strategy for both luminosity and polarization goals of RHIC in coming runs.

Haixin